

U.S. Serial No. 09/541,376  
Docket No. LFS-105

Remarks

Reconsideration is requested. Claims 1-10 are pending. Responsive to the Office Action of June 18, 2003, the Examiner's comments and the cited art have been noted and studied. For reasons to be set forth in detail below, it is respectfully submitted that the present application is in condition for allowance, and such action is requested.

Independent claim 1 has been amended to clarify the presently claimed subject matter. In particular, claim 1 now clearly recites that the second stop junction impedes sample flow such that the sample fills the measurement area (support at, for example, page 13, line 7-9 of the specification).

It is respectfully submitted that the amendments above are supported by the specification, claims, abstract of the disclosure, and drawings as originally filed, and that no new matter has been added.

35 U.S.C. §102 Rejections:

The subject matter of claims 1-5 was rejected under 35 U.S.C. §102(b) as anticipated Naka et al., EP 803,288 (hereinafter "Naka et al.").

Naka et al., as understood, describes a device for analyzing a sample that includes a suction pressure generating means, a drawing channel, an analytical section and a bypass channel (see, for example, col. 3, lines 9-23 of Naka et al.). The device described in Naka et al. is configured such that a liquid flow resistance (X) in a portion of the drawing channel, a liquid flow resistance (Y) in the bypass channel and a liquid flow resistance in (Z) in another portion of the drawing channel has the relationship of X > Y > Z (see, for example col. 3, lines 23-31 and col. 4, lines 24-29 of Naka et al.).

Naka et al. teaches that the liquid flow resistances (i.e., X, Y and Z) can be controlled by configuring the portions of the drawing channels and the bypass channel such that they are of different diameters and lengths (see, for example, col. 14, lines 47-55; col. 15, lines 13-27 and col. 17, lines 22-32 of Naka et al.). In particular, Naka et al. teaches that a portion of the bypass channel (element 6a in FIGs. 3, 4 and 5A-5D of Naka et al.) extending from a branching point

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with the drawing channel (see col. 14, lines 49-55 of Naka et al) should have a relatively small diameter.

Independent claim 1 of the present application, as amended, recites a medical diagnostic device with first and second stop junctions wherein:

... the second stop junction is weaker than the first stop junction such that the excess sample passes through the second stop junction into the overflow region only after the second stop junction has impeded sample flow such that sample has filled the measurement area sample. (emphasis added)

This feature of the presently claimed medical diagnostic device is described at, for example, page 8, lines 13-19; page 13, lines 4-16 and FIGs. 7 through 7C of the disclosure. As described in the disclosure, a "stop junction" functions via a discontinuity of channel cross section, surface tension and a resulting back pressure (see page 8, lines 9-21 of the disclosure).

The latest Office Action contends that a device described in Naka includes an analytical section 3 that serves as a first stop junction and a second stop junction in bypass channel 6 at 6a (see page 2, lines 9-22 of the Office Action and FIGs. 3, 4 and 5a-5d of Naka). Furthermore, the Office Action contends that the second stop junction is weaker than the first stop junction based on the flow of excess liquid into bypass channel 6 (see page 6, lines 5-8 of the Office Action).

Present amended claim 1 recites a medical diagnostic device wherein excess sample passes through a second stop junction only after the second stop junction "has impeded sample flow such that the sample has filled" a measurement area. Naka explicitly states that the relative liquid flow resistance (Y) in the bypass channel is due to "a relatively long bypass channel 6a having a **small diameter**" (see col. 15, lines 13-27, emphasis added). This description makes it clear that it is the diameter of bypass channel 6a itself, not the junction of 6a with 6b, that serves to define the operative flow resistance of bypass channel 6a that impedes sample flow.

Applicant, therefore, respectfully submits that Naka does not describe, teach or suggest the use of two stop junctions, one weaker than the other, with the weaker stop junction serving to impede

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sample flow until a measurement area is filled with sample. Rather, Naka describes and teaches the use of a small diameter bypass channel to impede sample flow.

For the reasons stated above, Applicant submits that independent claim 1, as amended, is novel, not obvious and, therefore, allowable over Naka et al.. Since claims 2-5 depend from and further limit independent claim 1, they are allowable for at least the same reason.

35 U.S.C. §103 Rejections:

The subject matter of claims dependent 6-10 was rejected under 35 U.S.C. §103(a) as obvious over Naka et al. (EP 803,288) in view of Shartle et al., EP 974,840 (hereinafter "Shartle et al."). Shartle et al. appears to describe a fluidic diagnostic device that includes a sample port, measurement area, channel, bladder, stop junction and a bypass channel (see col. 6, line 43 through col. 7, line 18; col. 9, lines 26-33 and FIGs. 1 and 6A-6D of Shartle et al.).

Shartle et al., as understood, does not cure the deficiency of Naka et al. discussed above with respect to independent claim 1. Since claims 6-10 depend from and further limit independent claim 1, they are allowable for at least the same reason as discussed above with respect to claim 1.

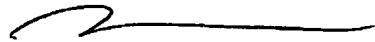
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CONCLUSION

Applicant respectfully requests that, in light of the amendments and explanations above, the Examiner reconsider and withdraw his rejections. Applicant respectfully submits that the claims are in condition for allowance. In the event that minor claim amendments are necessary to meet formal requirements, Applicant invites the Examiner to telephone the undersigned so that issuance can be expedited.

The Commissioner is hereby authorized to charge any required fees due in connection with this submission, including petition and extension of time fees, and to credit any overpayment, to Deposit Account No. 10-0750 (Docket No. LFS-105/MM) (Johnson & Johnson).

Respectfully submitted,

  
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